

TOP SECRET

25X1

6 October 1971

25X1

MEMORANDUM FOR: Chief, Technical Services Group, NPIC  
ATTENTION : Chief, Technical Operations Staff, TSG/NPIC  
SUBJECT : RED Monthly Report (September 1971)

Significant Items of Interest for September 1971:

1. Image Comparison Microscope [ ] This prototype instrument, which was delivered to NPIC in August, has developed defects which delayed the T&E and the operational evaluation. The defects are a focusing problem on one of the stages and a decentering of the image during zoom magnification. [ ] is currently attempting to engineer corrections.

25X1A

2. CRT Image Quality Study [ ] The subjective test plan submitted to NPIC for approval is being revised and should be completed shortly. Most of the CRT test equipment has been ordered from the vendors and is awaiting delivery.

25X1A

25X1A

3. Target Indexing Device [ ] Many successful test runs were performed and the equipment should be accepted by early October. Average accuracy is running about [ ] in the target index mode and about [ ] on the general screening mode.

25X1A

25X1

25X1

4. High Precision Stereo Comparator (HPSC) - The temperature and humidity of the clean room housing the HPSC were stabilized on the last day of August. [ ] performed the final alignment and adjustment of the HPSC during September. After many delays, the final acceptance tests for this instrument are scheduled to start the last week of September.

25X1A

5. Calibration Device for the HPSC - A calibration device to check the accuracy of the High Precision Stereo Comparator (HPSC) was developed [ ] and has now been delivered to NPIC for test and evaluation.

25X1A

6. [ ] The first set of data for the Color Discrimination Standards Task was provided to the contractor during an inspection visit.

25X1A

25X1

TOP SECRET

GROUP 1  
Excluded from automatic  
downgrading and  
declassification

Declass Review by NIMA/DOD

TOP SECRET

25X1

25X1

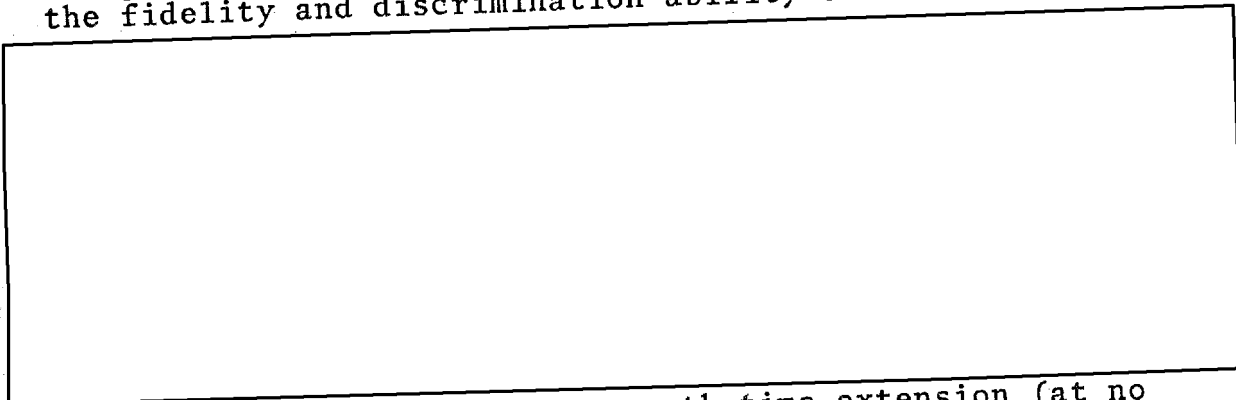
25X1A

7. [redacted] The final photograph from the Calibrated Color Imagery Study was viewed by the technical monitor. Due to film stability problems, an overall green cast is present on some of the photography; another set of photography, however, is satisfactory.

25X1

8. In-House Research - The Munsell Book of Color is being photographed [redacted] for the purpose of specifying the fidelity and discrimination ability of this film.

25X1A



a. A request for a two-month time extension (at no additional cost) has been received by ATB. The proposed extension would extend the termination date of the contract to 31 January 1972. Action will be taken on this request in the near future.

25X1A

25X1A

b. [redacted] Project Engineer of the [redacted] contract, visited [redacted] on 21-24 September to participate in and conduct [redacted] experiments on operational material at Headquarters [redacted] also stopped [redacted] on 20 September to obtain "ground truth" on the [redacted] target.

25X1A

25X1A

25X1A

25X1D

11. Proposals Received:

25X1A

- a. Dry Silver Implementation Study
- b. [redacted] Split-Field Microscope
- c. Programmed Search Modification for the PI Search & Scan Station
- d. 15X Eyepieces and 3X Objective for Zoom 240 Microscope
- e. Self-Radiating Screen Viewers Study
- f. Positive-Acting Dry Silver Material

25X1

TOP SECRET

TOP SECRET

25X1

25X1

25X1A

11. [ ] - The vacuum evaporation system in ATB was activated to lay down silver-deposited films. This initiates efforts to establish an in-house capability for using the [ ] developed technique of enhancing very low contrast imagery by depositing parallel reflecting silver films directly onto the two sides of a DP. The first in-house deposition was successful, but the process requires refinement to yield uniform silver films.

25X1A

25X1A

12. Imagery Interpretation Research Program, FY-72  
[ ] - The request for a follow-on FY-72 IIRP was approved by Headquarters. The program is scheduled for the Contract Review Board in early October. Negotiations are tentatively scheduled for the week of 11 October 1971.

25X1A

25X1A

13. [ ] assisted Center [ ] personnel in the development of a planned human factors evaluation of line scan displays [ ] also consulted with Center [ ] personnel on the human factors of optical instrument design and evaluation.

25X1A

25X1A

25X1A

25X1A

14. Training Needs Associated with Color Photography  
[ ] The Center received and is currently evaluating one in a series of final reports related to the interpretation of color photography. "A Recommended Color Vocabulary for Color Aerial Reconnaissance" evaluates within the framework of photointerpretation the numerous options for describing color. On the basis of the evaluation [ ] recommends an increasingly precise three-level vocabulary which, in its entirety, should satisfy the color description requirements of all Center components.

25X1A

25X1A

25X1A

15. [ ] Evaluation of Cable Traffic Format - HFS/ATB personnel responded to a request from DD/OCI with a plan for the evaluation of the new format for computer-printed cable traffic being received by OCI analysts.

16. HFS/ATB personnel participated in the evaluation of a draft Status Report on Color Imagery prepared for COMIREX.

17. A Pattern Recognition Symposium was held on 23 September at NPIC. It was attended by representatives from several components of the Agency.

25X1

TOP SECRET

TOP SECRET

25X1

25X1

25X1A

18. Meetings, Briefings, etc.:

a. Three visitors

[redacted] were briefed [redacted] on various exploratory projects as follows: density contour--false color reproduction on [redacted] density contour film; edge enhancement/tonal manipulation by the Sabattier Effect; contrast enhancement using vapor deposited reflectors on DP's; [redacted] dry color reproduction system; photoscience in security; and high magnification (2600x) viewing of surface relief image with a scanning electron microscope. They were also briefed on the Center's overall human factors research program by Dr. [redacted] and on the Image Translation Facility by [redacted]. In addition, they were briefed by Mr. [redacted] on the Dry Silver Development Program. The visitors expressed keen interest in all these projects.

25X1A

25X1A

25X1A  
25X1A  
25X1A

b. RED sponsored a two-day visit to NPIC of a [redacted] mobile display unit containing active demonstrations of dry silver photo reproduction materials and equipment.

25X1A

25X1A

c. RED sponsored two briefings [redacted] on a Fiche (photographic cut chip) System for operational imagery.

25X1A

25X1A

19. Training:

a. [redacted] began attending a course in Remote Sensing at the U. S. Department of Agriculture Graduate School.

25X1A

b. [redacted] attended selected sessions of the American Chemical Society, 162nd National Meeting, which was held in Washington. One interesting development was the first symposium on the Chemistry of Vision. Its purpose was to identify interest and to establish a working group in this area--given sufficient interest. The sessions on pollution control resulted in a memo [redacted]

25X1A

25X1A

25X1A

25X1

4  
TOP SECRET

**TOP SECRET**

25X1

25X1

25X1A

c. [REDACTED] HFS/ATB, attended the Agency's Intelligence and World Affairs Course.

d. A status report on Training Needs Associated with Color Photography was prepared by HFS/ATB for presentation to the Color Task Force on 1 October 1971.

20. Personnel:

25X1A

[REDACTED]

25X1A

[REDACTED]  
Research & Engineering Division  
TSG/NPIC

25X1

**TOP SECRET**